IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) An IR memory for an EGPRS receiver of a mobile station, which receives ~~the EGPRS receiver configured to receive~~ data from a base station via a data transmission channel and ~~configured to measure~~ measures a burst data transmission quality, ~~the receiver comprising:~~

~~an~~ the IR memory comprising ~~having~~:

(a) a first memory area ~~configured to buffer-store~~ that buffer-stores a specific number of data blocks with a predetermined first data resolution;

(b) a second memory area ~~configured to buffer-store~~ that buffer-stores erroneously decoded data blocks;

(c) the second memory area ~~storing~~ ~~configured to~~ that stores the erroneously decoded data blocks with a second data resolution, which is lower than the first data resolution;

wherein the second data resolution with which the erroneously decoded data blocks are stored in the second memory area of the IR memory is ~~configured to be~~ set adaptively between different resolution levels dependent on a burst data transmission signal quality measured by the receiver; and

wherein the memory size for the IR memory is:

$S_{IR} = 3 \times 204 \times \{2 \times (32 + N_{TS} \times 12) \times R_2 + X_D \times R_1\}$ bits

where:

S_{IR} = the memory size;

$\underline{N_{TS}}$ = a number of bundled time slots TS/TDMA frame;

$\underline{X_D}$ = the internal signal propagation time of the mobile station;

$\underline{R_1}$= the first data resolution as measured in bits;

$\underline{R_2}$ = the highest second data resolution as measured in bits; and

$\underline{R_1 = 5 \text{ bits, and } R_1 > R_2}$.

2. (Currently Amended) The IR memory ~~EGPRS receiver~~ as claimed in claim 1, wherein the first memory area of the IR memory stores ~~is configured to store~~ a number of data blocks dependent upon the internal signal delay within the mobile station.

3. (Currently Amended) The IR memory ~~EGPRS receiver~~ as claimed in claim 1, wherein the second memory area of the IR memory ~~is configured to store~~ stores a number of data blocks dependent upon the polling period of the data transmission channel and on the round trip delay.

4. (Currently Amended) The IR memory ~~EGPRS receiver~~ as claimed in claim 1, wherein the resolution levels of the second data resolution comprise 2 bits, 3 bits or 4 bits.

5. (Canceled)

6. (Currently Amended) The IR memory ~~EGPRS receiver~~ as claimed in claim 1, wherein the IR memory is connected, on the input side, to a reception buffer memory for data blocks.

7. (Currently Amended) The IR memory ~~EGPRS receiver~~ as claimed in claim 1, wherein the IR memory is connected to a decoder on the output side.

8-9. (Canceled)

10. (New) The IR memory as claimed in claim 1, wherein the size of the memory is at least about 34% smaller than the size needed when $R_1 = R_2$.

11. (New) A method for operation of an IR memory for an EGPRS receiver of a mobile station where the EGPRS receiver receives data from a base station via a data transmission channel and measures a burst data transmission quality, the method comprising:

(a) buffer-storing a specific number of data blocks with a predetermined first data resolution in a first memory area of an IR memory for an EGPRS receiver;

(b) buffer-storing erroneously decoded data blocks in a second memory area of an IR memory for an EGPRS receiver;

(c) storing the erroneously decoded data blocks in the second memory area with a second data resolution, which is lower than the first data resolution; and

(d) adaptively setting the second data resolution with which the erroneously decoded data blocks are stored in the second memory area of the IR memory between different resolution levels dependent on a burst data transmission signal quality measured by the receiver.

12. (New) The method as claimed in claim 11, further comprising storing in the first memory area of the IR memory the number of data blocks dependent upon the internal signal delay within the mobile station.

13. (New) The method as claimed in claim 11, further comprising storing in the second memory area of the IR memory the number of data blocks dependent upon the polling period of the data transmission channel and on the round trip delay.

14. (New) The method as claimed in claim 11, wherein the resolution levels of the second data resolution comprise 2 bits, 3 bits or 4 bits.

15. (New) The method as claimed in claim 11, wherein the first data resolution comprises 5 bits.

16. (New) The method as claimed in claim 11, further comprising connecting the IR memory on the input side to a reception buffer memory for data blocks.

17. (New) The method as claimed in claim 11, further comprising connecting the IR memory to a decoder on the output side.

18. (New) A method for operation of an incremental redundancy (IR) memory for an EGPRS receiver of a mobile station, which receives data from a base station via a data transmission channel and measures a burst data transmission quality, the method comprising:

(a) reading out the current data sub-blocks from the first memory area of an IR memory with a first data resolution and depuncturing them with the corresponding puncturing specification;

(b) determining whether a further data sub-block with the same block sequence number, the same temporary frame identity and a different puncturing scheme is present;

(c) if there is no further data sub-block with the same block sequence number, the same temporary frame identity and a different puncturing scheme, determining whether there is a further data sub-block which has the same block sequence number, the same temporary frame identity and the same puncturing scheme;

(d) if there is a further data sub-block with the same block sequence number, the same temporary frame identity and a different puncturing scheme, reading out this data sub-block from a second memory area of the IR memory with a second data resolution, the data block read out being scaled upward by from the second data resolution to the first data resolution and depuncturing with a corresponding puncturing specification;

(e) combining the read-out and depunctured data sub-block with previously combined data sub-blocks;

(f) determining whether the number of combined data sub-blocks has exceeded a specific limit value;

(g) if no specific limit value has been reached, repeating steps (b)-(e) as required;

(h) if the specific limit value has been reached, effecting channel decoding of the RLC data block;

(i) determining whether the decoding was able to performed successfully;

(j) if the decoding of the RLC data block was successful, releasing the allocated memory area for the data and the control information; and

(k) if the decoding of the RLC data block is not concluded successfully, storing the current data sub-block in the second memory area of the IR memory with the second data resolution.

19. (New) The method of claim 18, further comprising adaptively setting the second data resolution with which the erroneously decoded data blocks are stored in the second memory area of the IR memory between different resolution levels dependent on a burst data transmission signal quality measured by the receiver.

20. (New) The method of claim 18, further comprising switching between two different data resolutions for the second data resolution with first-second data resolution for data bursts of high quality and the second-second data resolution that is greater than the first-second data resolution for a data burst with a low signal quality.

21. (New) The method of claim 18, further comprising:

(l) storing the data received from an equalizer of a receiver in a buffer memory of a digital signal processor DSP;

(m) determining whether all data bursts of an RLC data block have been received;

(n) once all data bursts associated with same RLC data block are ready for the data processing, de-interleaving the data;

(o) decoding the header data;

(p) determining whether the decoding of the header data is concluded successfully;

(q) if the decoding of the header data is not concluded successfully, erasing the current RLC data block; and

(r) if the decoding of the header data was concluded successfully, storing the corresponding data sub-blocks in the first memory area of the IR memory with the first data resolution.

22. (New) The method of claim 18, further comprising:

(l) scanning the IR memory to a search for free memory locations in a control information table;

(m) if the IR memory is full, scanning the IR memory for an overwritable data sub-block entry with the same block sequence and the same temporary frame identity number as the current data sub-block to be stored and overwriting all such found data sub-block entries;

(n) if no data sub-block with the same block sequence and the same temporary frame identity can be overwritten, scanning all further an overwritable data block entries for a data sub-block entry with a block

sequence and temporary frame identity other than those of the data sub-block that is currently to be stored and overwriting those data sub-block entries;

(o) if overwriting proceeds successfully, renewing and updating the control information table by a new block sequence, temporary frame identity, and RX quality value and by a new puncturing scheme and a new modulation coding scheme;

(p) scaling downward the output data resolution from the first data resolution to the second data resolution;

(q) storing the data sub-block and transmitting information about the memory allocation conditions to a microprocessor of the mobile station.

23. (New) The method of claim 18, further comprising, if no free or overwritable memory space is present, transmitting an indication signal to a base station, which indicates to the base station that there is no available memory space present in the mobile station.

24. (New) The method of claim 18, further comprising:

(l) scanning the IR memory to a search for free memory locations in a control information table;

(m) if the IR memory is full, scanning the IR memory for an overwritable data sub-block entry with the same block sequence and the same temporary frame identity number as the current data sub-block to be stored and overwriting all such found data sub-block entries;

(n) if no data sub-block with the same block sequence and the same temporary frame identity can be overwritten, scanning for an overwritable data sub-block entry with a block sequence and temporary frame identity other than those of the data sub-block that is currently to be stored and overwriting those data sub-block entries;

(o) if overwriting proceeds successfully, determining whether the reception signal quality lies above a specific threshold value and renewing and updating the control information table by a new block sequence, temporary frame identity, and RX quality value and by a new puncturing scheme and a new modulation coding scheme;

(p) if the reception signal quality is above the specific threshold value, scaling downward the data resolution from the first data resolution to the second data resolution, where the second data resolution is a first-second data resolution;

(q) if the reception signal quality is below the specific threshold value, scaling downward the data resolution from the first data resolution to the second data resolution, where the second data resolution is a second-second data resolution and the second-second data resolution is greater than the first-second data resolution;

(r) storing the data sub-block and transmitting information about the memory allocation conditions to a microprocessor of the mobile station.